IN THE CLAIMS

Please cancel claims 8, 30 and 40-48, without prejudice.

Please amend the claims as follows:

1. (Amended) A pharmaceutical composition, comprising a mixture of alpha interferon polymer conjugate positional isomers, wherein one of said positional isomers comprises an alpha interferon covalently conjugated to a substantially non-antigenic polymer at a histidine residue on said alpha interferon, wherein said substantially non-antigenic polymer is a polyalkylene oxide comprising an alkyl terminal.

7. (Amended) The pharmaceutical composition of claim 6, wherein said alpha interferon is alpha interferon 2b and [the] said mixture of positional isomers [are selected from the group consisting of] comprises a substantially non-antigenic polymer linked to said alpha interferon 2b, at an amino acid residue selected from the group consisting of Cys1, Lys31, His34, Lys49, Lys83, Lys121, Lys131 and Lys134.

~~9~~ 8. (Amended) The pharmaceutical composition of claim [8] 1, wherein said polyalkylene oxide is a polyethylene glycol.

~~10~~ 9. (Amended) The pharmaceutical composition of claim [8] ~~9~~ 8, wherein said polyalkylene oxide is a monomethoxy-polyethylene glycol, (mPEG).

~~14~~ 13. (Amended) A pharmaceutical composition, comprising a mixture of alpha interferon polymer conjugate positional isomers [The pharmaceutical composition of claim 1], wherein one of said positional isomers comprises an alpha interferon covalently conjugated to a [said polymer is] substantially non-antigenic polymer at a histidine residue on said alpha interferon, wherein said substantially non-antigenic polymer is selected from the group consisting of polypropylene glycol, dextran, polyvinyl pyrrolidones, polyacryl amides, polyvinyl alcohols and carbohydrate-based polymers.

~~15~~ 14. (Amended) An alpha interferon-containing composition, comprising a plurality of alpha interferon polymer conjugates, wherein at least about 15% of the conjugates include covalent attachment of [said] a substantially non-antigenic polymer at a histidine of said alpha interferon, wherein said substantially non-antigenic polymer is a polyalkylene oxide comprising an alkyl terminal.

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~~19~~ 18. (Amended) A pharmaceutical composition, comprising a mixture of alpha interferon 2b-polymer positional isomers, wherein from about 30 to about 60% of the positional isomers include a substantially non-antigenic polymer conjugated to the His34 of said alpha interferon, from about 7 to about 20% of the positional isomers include a substantially non-antigenic polymer conjugated to the Cys1 of said alpha interferon and about 7 to about 15% of the positional isomers include a substantially non-antigenic polymer conjugated to the Lys121 of said alpha interferon, wherein said substantially non-antigenic polymer is a polyalkylene oxide comprising an alkyl terminal.

~~20~~ 21. (Amended) A method of preparing alpha-interferon conjugates, comprising contacting an alpha interferon with a sufficient amount of [an] a mono-activated oxycarbonyl-oxy-N- dicarboximide-activated substantially non-antigenic polymer under conditions which are sufficient to facilitate covalent attachment of said substantially non-antigenic polymer at a histidine of said alpha interferon, wherein said substantially non-antigenic polymer is selected from the group consisting of a polyalkylene oxide comprising an alkyl terminal, polypropylene glycol, dextran, polyvinyl pyrrolidones, polyacryl amides, polyvinyl alcohols and carbohydrate-based polymers.

27. (Amended) The method of claim [26] 21, wherein said polymer is present in a molar [excess] ratio ranging [is] from about 1 part polymer to about [8-fold] 8-parts alpha interferon.

~~27~~ 28. (Amended) The method of claim [27] ~~26~~ 25, wherein said polymer molar excess is from about 1.5 to about 7-fold.

~~29~~ 31. (Amended) The method of claim [30] ~~21~~ 20, wherein said polyalkylene oxide is a polyethylene glycol.

Please enter the following new claims:

~~38~~ 49. (New) The pharmaceutical composition of claim ~~14~~ 13, wherein said alpha interferon is interferon alpha 2b.

~~39~~ 50. (New) The pharmaceutical composition of claim ~~49~~ 38, wherein said histidine residue is His34.

~~40~~ 51. (New) The pharmaceutical composition of claim ~~14~~ 13, wherein said mixture of said alpha interferon positional isomers comprises at least about 3 positional isomers.

~~52~~ 41. (New) The pharmaceutical composition of claim ~~14~~ 13, wherein said mixture of said alpha interferon positional isomers comprises at least about 6 positional isomers.

~~53~~ 42. (New) The pharmaceutical composition of claim ~~14~~ 13, wherein said mixture of said alpha interferon positional isomers comprises at least about 8 positional isomers.

~~54~~ 43. (New) The pharmaceutical composition of claim ~~49~~ 38, wherein said mixture of positional isomers comprises a substantially non-antigenic polymer linked to said alpha interferon 2b, at an amino acid residue selected from the group consisting of Cys1, Lys31, His34, Lys49, Lys83, Lys121, Lys131 and Lys134.

~~55~~ 44. (New) The pharmaceutical composition of claim ~~14~~ 13, wherein said substantially non-antigenic polymer has a molecular weight of from about 200 to about 35,000.

~~56~~ 45. (New) The pharmaceutical composition of claim ~~14~~ 13, wherein said substantially non-antigenic polymer has a molecular weight of from about 1,000 to about 15,000.

~~57~~ 46. (New) The pharmaceutical composition of claim ~~14~~ 13, wherein said substantially non-antigenic polymer has a molecular weight of from about 2,000 to about 12,500.

~~58~~ 47. (New) The pharmaceutical composition of claim 1 wherein said polyalkylene oxide is terminated with a C_{1-4} alkyl.

~~59~~ 48. (New) The pharmaceutical composition of claim ~~19~~ 18 wherein said polyalkylene oxide is terminated with a C_{1-4} alkyl.

~~60~~ 49. (New) The method of claim ~~21~~ 20 wherein said polyalkylene oxide is terminated with a C_{1-4} alkyl.

~~61~~ 50. (New) A pharmaceutical composition, comprising a mixture of alpha interferon polymer conjugate positional isomers, wherein at least one of said positional isomers comprises an alpha interferon covalently conjugated to a substantially non-antigenic polymer at a histidine residue on said alpha interferon, prepared by a process comprising contacting an alpha interferon with a sufficient amount of a mono-activated substantially non-antigenic polymer under conditions which are sufficient to facilitate covalent attachment of said substantially non-antigenic polymer at a histidine of said alpha interferon, said mono-activated substantially non-antigenic polymer being a polyalkylene oxide comprising ~~at least one~~ an alkyl substituted terminal.